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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/826.291	04/19/2004	Akira Okamoto	103213-00078	9910

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WASHINGTON, DC 20036-5339

EXAMINER
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DO, ANH HONG

ART UNIT	PAPER NUMBER
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2624

MAIL DATE	DELIVERY MODE
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01/23/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	Application No. 10/826,291	Applicant(s) OKAMOTO, AKIRA	
	Examiner ANH H. DO	Art Unit 2624	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 3,4,7,10,11,16,17 and 20 is/are allowed.
- 6) ☒ Claim(s) 1, 2, 5, 6, 8, 9, 12-15, 18 and 19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☒ Certified copies of the priority documents have been received in Application No. 09/314,961.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |  |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>4/19/04 + 11/29/06</u> . | 6) <input type="checkbox"/> Other: ____  |

## DETAILED ACTION

### *Priority*

1. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copy has been filed in parent Application No. 09/314,961, filed on 5/20/1999.

### *Double Patenting*

2. A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

3. Claim 2, 9, and 15 are rejected under 35 U.S.C. 101 as claiming the same invention as that of claim 2 of prior U.S. Patent No. 6,751,355. This is a double patenting rejection.

Comparing claim 2 of the present application with claim 2 of Patent No. 6,751,355, they recite the same method no matter the input data is distributed along time axis or space axis.

Regarding claim 9, since this is an apparatus claim corresponding to method claim 2, the discussion of claim 2 is applied hereto.

Regarding claim 15, since this is a system claim corresponding to method claim 2, the discussion of claim 2 is applied hereto.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 8, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over the prior art described in the application (hereafter the PAA) in view of Yoshida et al. (Patent No. 5,162,923).

Regarding claim 1, the PAA discloses: a wavelet encoding method that converts input data, distributed along a time axis, into data distributed along frequency axis by using a frequency range dividing filter and that compresses the data distributed along the frequency axis by using methods corresponding to individual frequency ranges, wherein data in a plurality of frequency ranges along the frequency axis is compressed (specification, page 1, lines 12-19) by performing scalar quantization with step numbers (specification, page 2, lines 9-12).

The PAA does not disclose expressly performing scalar quantization with step numbers varied from one frequency range to another.

Yoshida discloses performing scalar quantization with step numbers varied from one frequency range to another (col. 19, lines 27-30).

The PAA & Yoshida are combinable because they are from encoding method.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to perform scalar quantization with step numbers varied from one frequency range to another in the PAA as taught by Yoshida.

The suggestion/motivation for doing so would have been to satisfactorily encode image information in a simple manner (Yoshida, col. 3, lines 3-6).

Therefore, it would have been obvious to combine the PAA with Yoshida to obtain the invention as specified in claim 1.

Regarding claims 8 and 14, since these are apparatus claims corresponding to method claim 1, the discussion of claim 1 is applied hereto.

### ***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

7. Claims 5, 6, 12, 13, 18 and 19 are rejected under 35 U.S.C. 102(a) as being anticipated by the PAA.

Regarding claim 5, the PAA teaches a wavelet-based encoding method that converts input data, distributed along a time axis, into data distributed along frequency axis by using a frequency range dividing filter and that compresses the data distributed along the frequency axis by using methods corresponding to individual frequency

ranges (specification, page 1, lines 12-19), wherein data in a particular frequency range along the frequency axis is compressed by performing vector quantization on a quantization units varied according to quantization errors resulting from vector quantization (specification, page 2, lines 1-5 and 12-16).

Regarding claims 12 and 18, since these are apparatus claims corresponding to method 5, the discussion of claim 5 is applied hereto.

Regarding claim 6, the PAA teaches a wavelet-based encoding method that converts input data, distributed along a time axis, into data distributed along frequency axis by using a frequency range dividing filter and that compresses the data distributed along the frequency axis by using methods corresponding to individual frequency ranges (specification, page 1, lines 12-19), wherein data in a particular frequency range along the frequency axis is compressed by performing either vector quantization or scalar quantization according to quantization errors resulting from vector quantization (specification, page 2, lines 1-5 and 9-16).

Regarding claims 13 and 19, since these are apparatus claims corresponding to method 6, the discussion of claim 6 is applied hereto.

***Allowable Subject Matter***

8. Claims 3, 4, 7, 10, 11, 16, 17, and 20 are allowed.
9. The following is a statement of reasons for the indication of allowable subject matter:

Regarding claims 3, 10, 16, and 20, the prior art, taken either singly or in combination, does not teach:

- wherein data in a particular frequency range along the frequency axis is compressed by performing vector quantization using a code book selected from among a plurality of code books according to activity of the input image data.

Regarding claims 4, 11, and 17, since these claims depend from claims 3, 10, and 16, respectively, they are also allowable for the same reason.

Regarding claim 7, the prior art, taken either singly or in combination, does not teach:

- wherein the frequency range dividing filter is composed of a plurality of non-recursive digital filters and performs a multiplication operation by exploiting a fact that a value is approximated by adding or subtracting a value obtained by shifting digits of another value.

#### ***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANH H. DO whose telephone number is 571-272-7433. The examiner can normally be reached on 5/4-9.

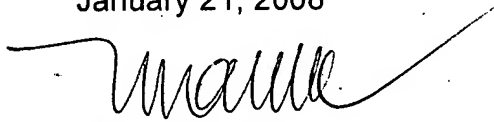
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, EILEEN LILLIS can be reached on 571-272-6928. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

January 21, 2008

A handwritten signature in black ink, appearing to read 'mauu', with a long horizontal stroke extending to the right.

**ANH HONG DO**  
**PRIMARY EXAMINER**